

Ad

Notice of Allowability	Application No.	Applicant(s)	
	10/812,326	DICKENS ET AL.	
	Examiner	Art Unit	
	Ernest Unelus	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/13/07.
2. ☒ The allowed claim(s) is/are 1-4, 8-15, 19-26 and 29-31.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

I. EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. David Victor (Reg. No. 39,867) on January 8, 2008. The examiner proposed amendments to better place the application in condition for allowance, particularly adding the limitation that prior arts fail to teach. Mr. Victor agreed.

The application has been amended as follows:

3. **Claim 1** (Currently Amended) A method, comprising:

signaling, as part of a diagnostic operation with respect to an Input/Output (I/O) controller, a reconnection inhibitor over a bus to cause the reconnection inhibitor to perform an operation to access the bus to inhibit the I/O controller from accessing the bus;

transmitting, as part of the diagnostic operation, by an initiator, I/O requests on the bus to the I/O controller, wherein the I/O requests are queued in an I/O queue, wherein the I/O controller is inhibited by the reconnection inhibitor from draining the queue while the initiator transmits requests to the I/O controller;

signaling the reconnection inhibitor to perform an operation to cease accessing the bus, wherein the I/O controller accesses the bus to complete processing of an I/O request and process further I/O requests in the I/O queue in response to the reconnection inhibitor ceasing to issue requests on the bus; and

performing diagnostic testing of the I/O controller when the I/O queue is at different levels, wherein the level of I/O requests pending in the I/O queue is controlled by the signaling

of the reconnection inhibitor, wherein the I/O queue is increased by signaling the reconnection inhibitor to access the bus to inhibit the I/O controller from accessing the bus and depleting the I/O queue, and wherein the I/O queue is decreased by signaling the reconnection inhibitor to cease accessing the bus to allow the I/O controller to access the bus and deplete the I/O queue.

4. **Claim 12** (Currently Amended) A system, comprising:

a reconnection inhibitor;

an initiator;

an Input/Output (I/O) controller;

a bus, wherein the reconnection inhibitor, initiator, and the I/O controller communicate over the bus;

circuitry in the initiator capable of causing operations comprising:

signaling, as part of a diagnostic operation with respect to the I/O controller, the reconnection inhibitor over the bus; and

transmitting, as part of the diagnostic operation, I/O requests on the bus to the I/O controller after signaling the reconnection inhibitor;

signaling the reconnection inhibitor to perform an operation to cease accessing the bus, wherein the I/O controller accesses the bus to complete processing of an I/O request and process further I/O requests in the I/O queue in response to the reconnection inhibitor ceasing to issue requests on the bus; and

performing diagnostic testing of the I/O controller when the I/O queue is at different levels, wherein the level of I/O requests pending in the I/O queue is controlled by the signaling of the reconnection inhibitor, wherein the I/O queue is increased by signaling the reconnection inhibitor to access the bus to inhibit the I/O controller from accessing the bus and depleting the I/O queue, and wherein the I/O queue is decreased by signaling the reconnection inhibitor to cease accessing the bus to allow the I/O controller to access the bus and deplete the I/O queue;
and

circuitry in the reconnection inhibitor capable of accessing the bus to inhibit the Input/Output (I/O) controller from accessing the bus in response to receiving the signal from the initiator, wherein the I/O requests transmitted by the initiator are queued in an I/O queue, wherein the I/O controller is inhibited by the reconnection inhibitor from draining the queue while the initiator transmits requests to the I/O controller.

5. **Claim 23** (Currently Amended) A device in communication with an initiator and an Input/Output (I/O) controller over a bus, wherein the device includes circuitry capable of causing operations comprising:

receiving, as part of a diagnostic operation with respect to the I/O controller, a signal from the initiator; and

accessing the bus to inhibit the Input/Output (I/O) controller from accessing the bus in response to the signal, wherein the initiator transmits, as part of the diagnostic operation, I/O requests on the bus to the I/O controller, wherein the I/O requests are queued in an I/O queue, wherein the I/O controller is inhibited by the device from draining the queue while the initiator transmits requests to the I/O controller, wherein the initiator performs diagnostic testing of the I/O controller when the I/O queue is at different levels, and wherein the level of I/O requests pending in the I/O queue is controlled by the device inhibiting the I/O controller from accessing the bus;

receiving a second signal from the initiator to cease accessing the bus, wherein the I/O controller accesses the bus to complete processing of an I/O request and process further I/O requests in the I/O queue in response to the device ceasing to access the bus, wherein the level of I/O requests pending in the I/O queue is controlled by the device accessing the bus, wherein the I/O queue is increased by the device accessing the bus to inhibit the I/O controller from accessing the bus and depleting the I/O queue, and wherein the I/O queue is decreased by the

device ceasing to access the bus to allow the I/O controller to access the bus to deplete the I/O queue.

The applicant has canceled claims 5-7, 16-18, 27, and 28.

II. RELEVANT ART CITED BY THE EXAMINER

6. The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.05(c)**.

The following references also teach of an initiator and an Input/Output (I/O) controller over a bus:

U.S. PATENT NUMBER

US 7,127,572

US 5,918,057

US 6,938,133

US 2003/0014568

US 6,295,573

III. ALLOWABLE SUBJECT MATTER

7. The following is an examiner's statement of reasons for allowance: In regards to claims 1, 12, and 23, the prior art of record fails to disclose "transmitting, as part of the diagnostic operation, by an initiator, I/O requests on the bus to the I/O controller, wherein the I/O requests

are queued in an I/O queue, wherein the I/O controller is inhibited by the reconnection inhibitor from draining the queue while the initiator transmits requests to the I/O controller”.

8. The remaining claims 2-4, 8-11, 13-15, 19-22, 24-26, and 29-31 are allowed by virtue of their dependencies on the independent claims. Hence, the examiner has allowed claims 1, 12, and 23.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

IV. CLOSING COMMENTS

Conclusion

a. STATUS OF CLAIMS IN THE APPLICATION

10. The following is a summary of the treatment and status of all claims in the application as recommended by M.P.E.P. 707.07(i):

a(1) CLAIMS ALLOWED IN THE APPLICATION

11. Per the instant office action, claims 1-4, 8-15, 19-26, and 29-31 have been allowed.

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b. DIRECTION OF FUTURE CORRESPONDENCES

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernest Unelus whose telephone number is (571) 272-8596. The examiner can normally be reached on Monday to Friday 9:00 AM to 5:00 PM.


IMPORTANT NOTE

13. If attempts to reach the above noted Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Alford Kindred, can be reached at the following telephone number: Area Code (571) 272-4037.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PMR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-91 97 (toll-free).

January 15, 2008

Ernest Unelus
Patent Examiner
Art Unit 2181


Primary Examiner
1/22/2008